

Work Order ID 163236

Tuesday, June 27, 2017 9:53:32 AM

163236

Page 1

Item ID: D3439-101 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Mirror Assembly 8"
Start Date: 6/27/2017 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 7/11/2017 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: DAS 21 9-89 Date: JUN 27 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D3439	Rev B								

100		0.00							DAS 13 9-89
-----	--	------	--	--	--	--	--	--	-------------

100 PURCHASING 12 JUN 28 2017
Purchasing Memo
Purchasing Issue P/O: 36853
For Grote Mirror P/N: 12183
Possible Supplier: UAP/NAPA
Material release note is required

110	Receive & Inspect for Damage & Mat'l Certs	0.00							
-----	--	------	--	--	--	--	--	--	--

110 Packaging Memo 0.24
Packaging Ensure Material Release Note is attached
12x SPD-7-11

115	QC6- All purchased or subcontracted products	0.00							
-----	--	------	--	--	--	--	--	--	--

115 QC Memo 0.00
Quality Control 12 JUL 11 2017 DAS 38 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Tuesday, June 27, 2017 9:53:32 AM

Page 2

[illegible]

DQA: _____ Date: _____



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		OTHER : ☐							

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Page 3

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location: 5/383	0.00							
140									
Packaging	Memo	0.12							
Packaging									
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	1.20							
Quality Control									

DAS
21
9-89

SEP 07 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, June 27, 2017 9:53:35 AM

Page 1

Work Order ID: 163236

163236

Parent Item: D3439-101

D3439-101

Parent Item Name: Mirror Assembly 8"

Start Date: 6/27/2017

Required Date: 7/11/2017

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP A05.07.20New issueKJ/JLM
per dwg RevB DD verf:ec

IPP Rev:B 10.09.08

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
12183 *12183* Grote Mirror		Purchased	No			120	Each	0.0000	1	12			
D3015-3 *D3015-3* Locknut		Manufactured	No			120	Each	108.0000	1	12			
										12x 8017-7-11			
										AUG 29 2017			DAS 19 9-89

Location	Loc Qty	Loc Code
FG	18	
95758	8	
96151	10	
ST015	90	
161702	40	
162865	50	

D3439-3 *D3439-3* Stud		Manufactured	No			120	Each	53.0000	1	12			
										AUG 29 2017			DAS 19 9-89

Location	Loc Qty	Loc Code
GA	53	
127016	5	
144634	48	

NAS1149C0563R *NAS1149C0563R* Washer		Purchased	No			120	Each	268.0000	1	12			
										AUG 29 2017			DAS 19 9-89

Location	Loc Qty	Loc Code
ST265	268	
m131697	168	
m137853	100	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



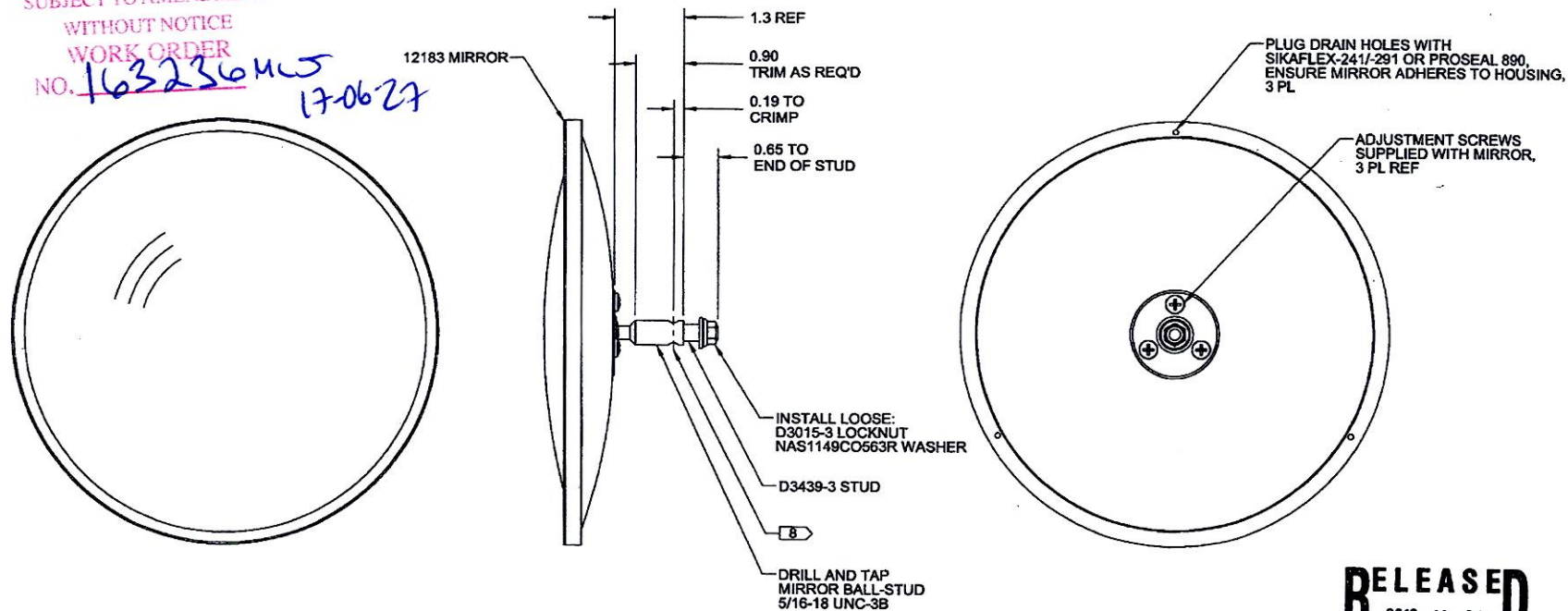
QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
2AC 21 00-0								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

WORK ORDER NO. 163236 MWS 17-06-27 121

ITEM	QTY -101	P/N	DESCRIPTION
1	X	D3439-101	MIRROR ASSEMBLY, 8"
2	1	12183	MIRROR 8" (GROTE)
3	1	D3015-3	LOCKNUT
4	1	D3439-3	STUD
5	1	NAS1149CO563R	WASHER (OR AN960JD516)



D3439-101 MIRROR ASSEMBLY

NOTES:

- 1) MATERIAL: MIRROR= 8" ROUND CONVEX MIRROR W/ STAINLESS STEEL CASE
CENTER-MOUNT BALL-STUD W/ 1/4-20 X 1" DEEP FEMALE THREAD
GROTE INDUSTRIES, 2600 LANIER DRIVE, MADISON, INDIANA 47250
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3439-101" USING REMOVEABLE TAG
- 7) WEIGHT: 1.18 lbs
- 8) TO INSTALL D3439-3 STUD:
 - APPLY LOCKTITE 262 TO THREADS BEING INSTALLED INTO MIRROR BALL-STUD
 - THREAD D3439-3 STUD INTO MIRROR BALL-STUD
 - CRIMP MIRROR BALL-STUD ON OPPOSING SIDES, 0.19 FROM END AS ILLUSTRATED USING TOOL DT8317
 - CRIMP TO DEPTH OF 0.015-0.030 USING R0.125

RELEASED
2010-09-07

B	REDRAW, ADD -3 (WAS PURCHASED/TRIMMED BOLT), RMV LFS	CP	10.07.20
A	NEW ISSUE	CP	05.05.27
REV.	DESCRIPTION	BY	DATE
DESIGN DRAWN		DART ASYSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3439	REV. I
MFG. APPR.		TITLE	SHEET 1 OF
APPROVED		MIRROR ASSEMBLY	SCALE
DE APPR.			N/A
DATE	10.07.20	COPYRIGHT © 2016 BY DART ASYSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMERCIALIZED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART ASYSPACE LTD.	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
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								Lead hand / Supervisor Approval Verification	
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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
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Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐								
OTHER :									



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36853

Purchase Order Date 6/28/2017

PO Print Date 6/28/2017

Page Number 1 of 2

Order From :

B C INDUSTRIAL
14 OLD FOREST
KIRKLAND, QUEBEC H9J 2Z8

VC-BC1001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED
JUN 28 2017

Contact Name

Vendor Phone

514-585-8907

Ship To Contact

Ship To Phone

Ship Via:

Purolator ground collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						
1	12183	Grote Mirror	7/6/2017 Yes 7/6/2017		12.00 Each	\$19.99	\$239.8
	AS PER DWG D3439 REV. B B163236						
						Line Total:	\$239.8
2	71400-40	6712 3" ROLLER	7/6/2017 Yes 7/6/2017		40.00 Each	\$3.65	\$146.0
						Line Total:	\$146.0

Deliver To: GARY

PO Instructions: Procurement Quality Clauses
A000 QUALITY CLAUSES NOT REQUIRED

Note:

6/28/2017

July 10 2017

Packing Slip

PS170710DA

Votre PO# 36853

Livrer a/Ship to:

Dart Aerospace Ltd
1270 Aberdeen
Hawksbury, Ont
K6A 1K7

Description	Livrer/Ship	B/O
1. grote mirror 12183 ✓	12 ✓	0

5817-7-11

BC Industrial.... 14 Old Forest....Kirkland, Quebec.. H9J2Z8
Phone 514-585-8907 bcpc1@videotron.ca

DAS
38
9-89

BC Industrial..... 14 Old Forest....Kirkland....Quebec....H9J-2Z8....Canada
Phone 514-585-8907 Email bcpci@videotron.ca

FACTURE/INVOICE

INV170710DA

July 10 2017

Ref Notre PS# PS170710DA

Votre PO# 36853

Vendu a

Dart Aerospace Ltd
1270 Aberdeen
Hawksbury, Ont
K6A 1K7

Description	Quan	Prix	Total
1. grote mirror 12183 ✓	12 ✓	19.99 ✓	239.88 ✓

Sept 7-11

239.88

HST 31.18

TOTAL 271.06

#TPS/GST-14264062
#TVQ/PST-1021696907

Terms 2%10 Net 30

BC Industrial..... 14 Old Forest....Kirkland....Quebec....H9J-2Z8....Canada

Phone 514-585-8907

Email bcpcl@videotron.ca

Certificate of Compliance

July 10 2017

Dart Aerospace Ltd
1270 Aberdeen
Hawksbury, Ont
K6A 1K7

Att: Chantal Lavoie

This is to confirm that the parts delivered on our

PS170710DA

grote mirror 12183

conforms to the specifications outlined on your purchase
order 36853


Thank you
Bryan Cameron

#TPS/GST-14264062

#TVQ/PST-1021696907

Terms 2%10 Net 30